

G. NELSON.
 TERMINAL PLATE FOR TELEPHONE DESK STANDS.
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1,016,847.

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Fig. 1.

Fig. 2.

Fig. 3.

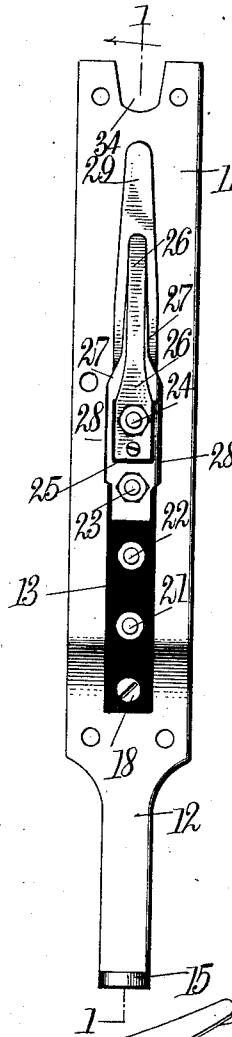
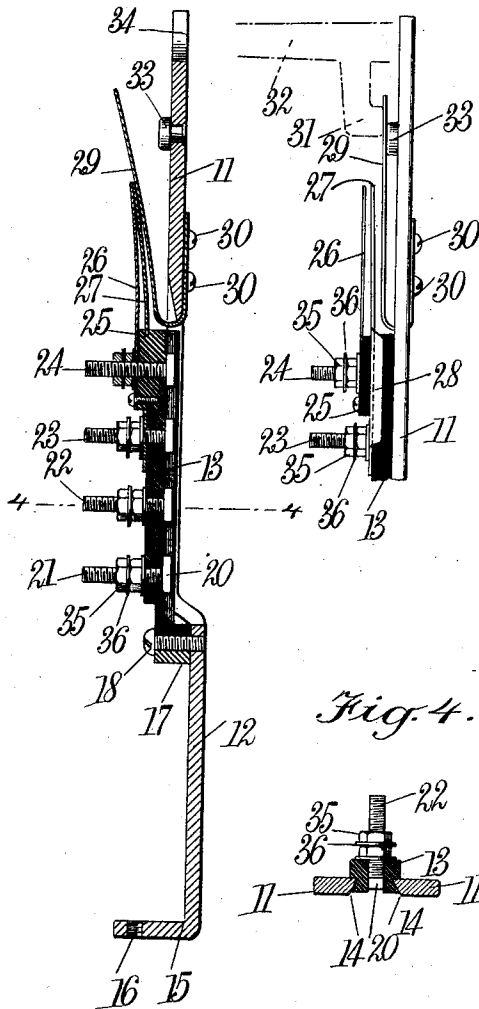
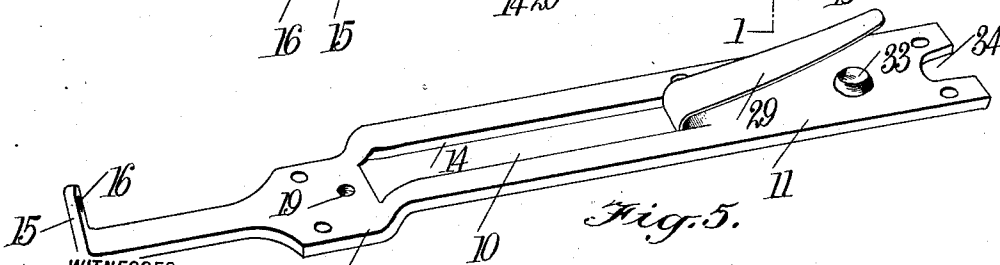
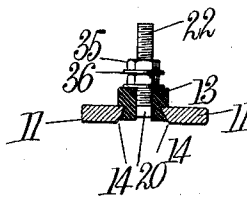


Fig. 4.



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TERMINAL PLATE FOR TELEPHONE DESK-STANDS.

1,016,847.

Specification of Letters Patent.

Patented Feb. 6, 1912.

Application filed August 2, 1911. Serial No. 642,036.

To all whom it may concern:

Be it known that I, GUSTAV NELSON, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Terminal Plate for Telephone Desk-Stands, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to provide a terminal block which may be quickly and readily removed from the plate for repair or alteration; to provide a plate of the character mentioned constructed from insulating material in a manner to prevent the leakage of current incident to constructions of this character; to provide a simple and efficient mounting for the contact members; and to simplify the construction by eliminating the bushings at the binding posts and the insulating strips between the contact spring prevalent in the usual construction.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a vertical longitudinal section taken on the line 1—1 in Fig. 3, of a plate constructed and arranged in accordance with the present invention; Fig. 2 is an edge view of the plate shown in Fig. 3, showing the upper half thereof in conjunction with a receiver hook for a telephone stand; Fig. 3 is a face view of a plate constructed and arranged in accordance with the present invention; Fig. 4 is a cross section of the plate taken on the line 4—4 in Fig. 1; and Fig. 5 is a perspective view of the metal frame of a plate constructed and arranged in accordance with the present invention.

It is to form the slot 10 that the framing plate 11 is bent to provide the offset portion 12, as seen in the drawings. The offset portion 12 permits the sliding block 13 to enter between the undercut edge surfaces 14 of the slot, as seen best in Fig. 4 of the drawings. At the end of the offset portion 12 a foot 15 is bent up in which is formed a perforation 16 to receive the structural holding screw by which the plate is held within the stand. It will be understood that in the ordinary construction the

plate 11 is straight throughout, not having the offset portion 12. Desiring to use the present constructed plate in conjunction with the usual stand, I elongate the foot 15 to register the perforation 16 with the hole provided for mounting the usual plate in the usual stand.

The block 13 is constructed of hard rubber or other suitable electric insulating material. The sides of the block 13 are grooved, as seen best in Fig. 4 of the drawings, to receive the overhang of the edge surfaces 14 when the said block 13 is forced into the slot 10. At the lower or following end of the block 13 there is provided a pad 17, which pad 17 bears against the offset portion 12. The portion of the block 13 having the pad 17 is perforated to receive the holding screw 18, which screw engages the threads in the perforation 19 after the block 13 has been forced home in the slot 10.

The block 13 is grooved on the under or inner side to receive the elongated or T-shaped heads 20 of the various binding posts 21, 22, 23 and 24, which posts are provided with the said heads. By thus constructing the binding posts above mentioned and mounting the same so that the elongated heads 20 extend within the slot provided to receive the same, the said posts are conveniently and cheaply constructed to prevent rotation or turning of the same when the binding nuts are being tightened.

At the upper or forward end of the block 13 a second pad 25 is provided. The pad 25 is projected from the outer face of the block 13, and is made somewhat narrower than the said block. The pad 25 is provided to seat the spring blade contact 26. The contact 26, as will be seen by reference to Figs. 1 and 3 of the drawings, is metallically and electrically connected with the post 24. The spring blade contact 27 is metallically and electrically connected with the post 23. To avoid the possibility of metallic contact between the post 24 and the structural portions of the blade 26 the blade 27 is perforated to extend over the pad 25, as seen best in Fig. 3 of the drawings. Adjacent the perforation mentioned the lateral edges 28 of the said blade are over-turned to engage the pad on the block 13. The free end extensions of the blades 26 and 27 are normally straight and held in substantially parallel relation, as shown best in Fig. 2 of the drawings. From this po-

sition they are moved to the position shown in Fig. 1 of the drawings, where the ends of the said plates are pressed together in metallic contact by the spring 29.

- 5 It is to hold the plate 27 rigidly in position and to prevent the lift thereof to impinge upon the blade 26, that I have provided a saw-cut or slot in the forward end of the block 13 and at a level with the base
10 of the pad 25. When installing the blade 27 the edge of the perforation formed therein to receive the pad 25 is first inserted in the saw-cut mentioned, and prior to fastening the said blade in position on the block 13.
15 The spring 29 is rigidly secured to the plate 11 by the screws 30 set in from the back of the said plate. The free end of the spring 29 is provided to be engaged by the foot 31 depended from the bar 32 of the
20 "hook" of the telephone stand which is provided to support the telephone receiver. When the receiver is in place the bar 32 is depressed to force, by means of the foot 31, the spring 29 to rest upon the block 33.
25 To guide and receive the hook bar 32 a recess 34 is formed in the upper end of the plate 11.

Each of the posts 21 to 24 inclusive is provided with clamping nuts 35, which,
30 when set up against the washers 36, hold the wires which lead in from the main circuit and out to the receiver in the usual manner.

It will be observed that when a stand of
35 the character mentioned is provided with a plate and terminal block of the character described, the operator may remove the screw extended in the perforation 16, when the plate 11 and the said block may be entirely or partially withdrawn from the cylinder of the stand. The block 13 may then
40 be removed from the plate 11 by removing the screw 18 from the end of the block having the pad 17. The screw 18 being removed the block 13 is drawn downward toward the foot 15 and withdrawn from the slot 10. The block is now in convenient
45 position for alteration or repair. If, on the other hand, it is desired to save the time of repair, a new block may be quickly and
50 readily slipped in the slot 10 and moved to the upper end thereof to be secured in position by the screw 18.

It will be noted that by reason of the fact
55 that the blade 27 straddles the pad 25 the danger of short circuiting is eliminated. Also, it will be observed that by reason of the same mounting provided for both blades 26 and 27 the assemblage thereof is readily
60 and easily effected.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. In a device of the character set forth,
65 the combination with a terminal plate hav-

ing formed therein a slot; of an insulating block to rest within said slot and provided with the binding posts used by telephone stands; resilient contact blades mounted on said block and electrically connected with
70 two of said posts, said blades being normally separated; a movable member flexibly mounted on said plate at the upper end of said slot to hold said blades together, said
75 movable member being arranged for movement by the receiver hook of a telephone stand to release said blades; and means for holding said insulating block in said slot.

2. In a device of the character set forth, the combination with a terminal plate having
80 formed therein a slot the sides whereof overhang; of an insulation block having binding posts mounted thereon, said block having grooved sides to receive the over-
85 hanging sides of said slot; and means for holding said block in said slot.

3. In a device of the character set forth, a terminal plate having formed therein an
90 end opening slot the sides of said slot being extended to form guides; and an insulating block having the binding posts for a tele-
95 phone stand, said block being grooved to slide on the sides of said slot and adapted for insertion within said slot from the open end thereof.

4. In a device of the character set forth, a terminal plate having formed therein an
100 end opening slot the sides of said slot being extended to form guides; an insulating block having the binding posts for a tele-
105 phone stand, said block being grooved to slide on the sides of said slot and adapted for insertion within said slot from the open end thereof; and a holding screw for said
110 block insertible therethrough to engage said plate after said block is in position.

5. In a terminal plate of the character set forth, an insulating block having binding
115 posts mounted thereon, said block having a pad extension formed at the one end thereof to receive one of said posts; and a plurality of spring contact blades to engage two of
120 said posts respectively, one of said blades having a perforation formed therein to extend over said pad.

6. In a terminal plate of the character set forth, an insulating block having binding
125 posts mounted thereon, said block having a pad extension formed at the one end thereof to receive one of said posts; and a plurality of spring contact blades to engage two of
130 said posts respectively, one of said blades being perforated to extend over said pad and having downturned marginal edges to engage said block in holding relation.

7. In a device of the character set forth, the combination with a terminal plate hav-
135 ing an elongated slot and bent to form at the lower end thereof an offset portion the sides of said slot forming guides opening

above said offset portion; of an insulating block having mounted thereon binding posts, the sides of said block being grooved to hold the sides of said slot, said block being insertible within said slot from above the said offset portion; and an elongated foot for said offset portion perforated for securement upon a telephone stand. 15

8. In a device of the character set forth, the combination with a terminal plate having an elongated slot and bent to form at the lower end thereof an offset portion the sides of said slot forming guides opening above said offset portion; of an insulating block having mounted thereon binding 10

posts, the side of said block being grooved to hold the sides of said slot, said block being insertible within said slot from above the said offset portion; and an elongated foot for said offset portion perforated for securement upon a telephone stand.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 20

GUSTAV NELSON.

Witnesses:

E. F. MURDOCK,

JOHN P. DAVIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."